

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of claims:

1. (Previously presented) A device for separating blood into blood components, comprising:

a collecting container for receiving whole blood;

a first satellite container connected, in fluid flow communication, to said collecting container through a leukocyte filter for receiving from said collecting container a leukocyte depleted first blood component; and

a second satellite container connected, in fluid flow communication, with said collecting container for receiving from said collecting container a leukocyte depleted second blood component,

said second satellite container being connected to said collecting container through said leukocyte filter,

said leukocyte filter being configured to filter leukocytes and to allow platelets to pass therethrough so as to enable said first satellite container to receive from said collecting container a leukocyte depleted platelet rich plasma component (PRP) and to enable said second satellite container to receive from said collecting container a leukocyte depleted packed red cells component (PRC),

flow control means being provided for allowing fluid flow from said collecting container selectively into said first or said second satellite container through said leukocyte filter, such that said whole blood (WB) is separable into the leukocyte depleted platelet rich plasma component (PRP) and the leukocyte depleted packed red cells component (PRC) with a single leukocyte filter, and

said second satellite container being connected to said collecting container through a conduit means that bypasses said filter, said flow control means being configured to allow fluid flow from said second satellite container into said collecting container only through said conduit means that bypasses said filter.

2. (Canceled)

3. (Currently Amended) The device according to claim 1, wherein said second satellite container includes a blood additive and wherein said flow control means selectively provides for

feed (a) feeding the platelet rich plasma component (PRP) from said collecting container into said first satellite container through said leukocyte filter to provide the leukocyte depleted platelet rich plasma component into said first satellite container,

feed (b) feeding said blood additive from said second satellite container into said collecting container only through said conduit means by-passing said filter, and

feed (c) feeding the packed red cells component (PRC) from said collecting container into said second satellite container only through said leukocyte filter to provide into said second satellite container leukocyte depleted packed red cells component (PRC).

4. (Previously presented) The device according to claim 1, further comprising first conduit means connecting said collecting container to said first satellite container through said leukocyte filter, and

second conduit means branching off from said first conduit means downstream of said leukocyte filter to connect said collecting container to said second satellite container, and

wherein said by-pass conduit means branches off from said first conduit means upstream of said leukocyte filter and is connected to said second conduit means.

5. (Previously presented) The device according to claim 1, wherein said flow control means includes sensor means for detecting fluid flow or presence of fluid at selected positions of the device.

6. (Previously presented) The device according to claim 1, wherein said flow control means include sensor means for detecting a parameter representative of a presence of said packed red cells component (PRC) in the filtrate from said leukocyte filter and automatically operated valve means adapted to switch fluid flow communication from said collecting container to said first satellite container to fluid flow communication from said collecting container to said second satellite container when the sensor means detect the presence of said packed red cells component (PRC).

7. (Previously presented) The device according to claim 1, wherein said flow control means include manually operated valves.

8. (Previously presented) The device according to claim 4, further comprising a one-way valve provided in said by-pass conduit means allowing fluid flow only from said second satellite container to said collecting container.

9. (Previously presented) The device according to claim 4, wherein said flow control means include valve means in said second conduit means.

10. (Previously presented) The device according to claim 1, wherein said flow control means are associated with a separator device adapted to cause fluid flow from the collecting container to the satellite containers.

11. (Previously presented) The device according to claim 1, further comprising a third satellite container connected in fluid flow communication with said first satellite container for receiving from said first satellite container a plasma component (PL).

12 (Withdrawn): A method for separating blood into leukocyte depleted blood components comprising the steps of:

- providing a blood separator device comprising a collecting container (2) for receiving blood, a first satellite container (4) connected, in fluid flow communication, to said collecting container (2) through a leukocyte filter (22) and a second satellite container (6) connected, in fluid flow communication, to said collecting container through said leukocyte filter (22),
- separating blood collected in said collecting container (2) into a first (PRP) and second (PRC) blood component,
- feeding said first blood component (PRP) from said collecting container (2) into said first satellite container (4) through said leukocyte filter to provide a leukocyte depleted first blood component into said first satellite container, while leaving the second blood component (PRC) within said collecting container (2),
- adding into said collecting container (2) an additive solution for the second blood component (PRC),
- feeding said second blood component (PRC) suspended in said additive into said second satellite container (6) passing through said leukocyte filter (22).

13 (Withdrawn): A method according to claim 12, wherein said additive solution is fed from said second satellite container (6) into said collecting container (2) through by-pass conduit means (34), by-passing said leukocyte filter (22).

14 (Withdrawn): A method according to claim 12, comprising the steps of:

- detecting the presence of said second blood component (PRC) in the filtrate from said leukocyte filter (22) and
- switching fluid flow communication from said collecting container (2) to said first satellite container (4) to fluid flow communication from said collecting container (2) to said second satellite container (6) when the presence of said second blood component

is detected in the filtrate, thereby to allow recovery into said first satellite container (4) of the filter hold-up of the first blood component (PRP).

15 (Withdrawn): A method according to claim 12, further comprising separating the second leukocyte depleted blood component (PRP) in said first satellite container (4) into a third (PL) and fourth (PC) blood component and feeding said third blood component (PL) from said first satellite container (4) into a third satellite container (8).

16 (Withdrawn): Method according to claim 12, carried out with the use of a device having:

- a collecting container (2) for receiving blood (WB),
- a first satellite container (4) connected, in fluid flow communication, to said collecting container (2) through a leukocyte filter (22) for receiving from said collecting container (2) a leukocyte depleted first blood component (PRP),
- a second satellite container (6) connected, in fluid flow communication, with said collecting container (2) for receiving from said collecting container a second leukocyte depleted blood component (PRC), characterised in that said second satellite container (6) is connected to said collecting container (2) through said leukocyte filter (22), flow control means (36, 38, 42) being provided for allowing fluid flow from said collecting container selectively into said first (4) or second (6) satellite container through said leukocyte filter (22), whereby whole blood (WB) can be separated into a first (PRP) and second (PRC) leukocyte depleted blood component with a single leukocyte filter (22).

17 (Withdrawn): Method according to claim 13, carried out with the use of a device having:

- a collecting container (2) for receiving blood (WB),
- a first satellite container (4) connected, in fluid flow communication, to said collecting container (2) through a leukocyte filter (22) for receiving from said collecting container (2) a leukocyte depleted first blood component (PRP),
- a second satellite container (6) connected, in fluid flow communication, with said collecting container (2) for receiving from said collecting container a second leukocyte depleted blood component (PRC), characterised in that said second satellite container (6) is connected to said collecting container (2) through said leukocyte filter (22), flow control means (36, 38, 42) being provided for allowing fluid flow from said collecting container selectively into said first (4) or second (6) satellite container through said leukocyte filter (22), whereby whole blood (WB) can be separated into a first (PRP) and second (PRC) leukocyte depleted blood component with a single leukocyte filter (22).

18 (Withdrawn): Method according to claim 14, carried out with the use of a device having:

- a collecting container (2) for receiving blood (WB),
- a first satellite container (4) connected, in fluid flow communication, to said collecting container (2) through a leukocyte filter (22) for receiving from said collecting container (2) a leukocyte depleted first blood component (PRP),
- a second satellite container (6) connected, in fluid flow communication, with said collecting container (2) for receiving from said collecting container a second leukocyte depleted blood component (PRC), characterised in that said second satellite container (6) is connected to said collecting container (2) through said leukocyte filter (22), flow control means (36, 38, 42) being provided for allowing fluid flow from said collecting container selectively into said first (4) or second (6) satellite container through

said leukocyte filter (22), whereby whole blood (WB) can be separated into a first (PRP) and second (PRC) leukocyte depleted blood component with a single leukocyte filter (22).

19 (Withdrawn): Method according to claim 15, carried out with the use of a device having:

- a collecting container (2) for receiving blood (WB),
- a first satellite container (4) connected, in fluid flow communication, to said collecting container (2) through a leukocyte filter (22) for receiving from said collecting container (2) a leukocyte depleted first blood component (PRP),
- a second satellite container (6) connected, in fluid flow communication, with said collecting container (2) for receiving from said collecting container a second leukocyte depleted blood component (PRC), characterised in that said second satellite container (6) is connected to said collecting container (2) through said leukocyte filter (22), flow control means (36, 38, 42) being provided for allowing fluid flow from said collecting container selectively into said first (4) or second (6) satellite container through said leukocyte filter (22), whereby whole blood (WB) can be separated into a first (PRP) and second (PRC) leukocyte depleted blood component with a single leukocyte filter (22).

20. (Previously presented) The device according to claim 5, wherein said flow control means are electro-mechanical valves that are operated and controlled by said sensor means.

21. (Previously presented) A device for separating blood into blood components, comprising:

- a collecting container that receives whole blood;
- a leukocyte filter that filters the whole blood so as to remove leukocytes from the whole blood and allow platelets to pass through the filter;
- a first satellite container in fluid communication with the collecting container through the leukocyte filter such that the first satellite container receives through a first satellite container conduit a leukocyte depleted platelet rich plasma component;
- a second satellite container in fluid communication with the collecting container through the leukocyte filter such that the second satellite container receives through a second satellite container conduit a leukocyte depleted packed red cells component;
- a plurality of valves that selectively control fluid flow associated with the collecting container, the first satellite container, and the second satellite container; and
- a bypass conduit that bypasses the leukocyte filter and that maintains the fluid communication between the collecting container and the second satellite container, one of the plurality of valves being configured to provide for fluid flow from the second satellite container into the collecting container only through the bypass conduit.

22. (Previously presented) The device according to claim 21, further comprising a three-way conduit connector in the second satellite container conduit, wherein the valve that provides for fluid flow from the second satellite container into the collecting container only through the bypass conduit is located in the second satellite container conduit between the leukocyte filter and the three-way conduit connector.

23. (Previously presented) The device according to claim 21, wherein each of the plurality of valves is a hose clamp.